

Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

Bid Number: B-23-0279 Purchase Request Number: 23-3984 11/22/2023 Date: Page:

1 of 14

NO.				4 DDD () / E	D DUDOET	חום ו	DICEC
	QTY.	UNIT OF ISSUE	DESCRIPTION	Unit Price	Total Amount		PRICES Total Amount
1	1.0	lot	Mini Indoor Data Center(32441N)	18,499,795.0	18,499,795.00	OTHET FICE	Total Amount
			Specifications	0			
			Specifications MINI INDOOR DATA CENTER - 1 set FusionModule800- U103A12ML: Subassembly Accessories, FusionModule800, Basic configuration BC3L-IT25kW-UPS10K*3 - Intelligent temperature control*2-ECC800-Pro- PAD-Smoke sensor CABINET SYSTEM - 2 units NetHos-M FR426135W-S: M-type Rack, 600mm(W)*1350mm(D)*2000mm(H), 42U, with elastic front door, with bottom plate, the front door is glass door - 1 unit FR428135W: M-type Rack, 800mm(W)*1350mm(D)*2000mm(H), 42U, with elastic front door, with bottom plate, the front door is glass door - 6 units IDSV2ACPDUM0: Distribution line-Metered type-PDU2000-32-1PH-20/4-M1-20*C13+4*C19-Full height vertical- With Industrial connector-Supporting mounting plate use - 3 units IDSV2DKBM23: Full-height rPDU mounting plate, for M-type cabinets MONITOR SYSTEM - 1 unit 33010352: Sensor-Non positioning water immersion sensor-12VDC-NO/NC-Standard 5m immersion rope, maximum extension to 50m - 8 units 33010348: Sensor-NTC Temperature Sensor20-70degC-+/-1degC(25degC) - 3 units UT-H606: Other Network Accessory-Smart ETH gateway-48VDC-POE - 1 unit MCECC3000mm001: Cable Bundle, FusionModule800, ECC to Smart ETH gateway link cable, 3m-Power supply - 1 unit EBTSensor005: temperature and humidity sensor - 8 units UT-H6902: Network Accessory-ETH Converter RS485/CAM converter to FE-POE ACCESSORIES - 1 unit BRACNDPKA: Air Conditioner Auxiliary Material,				
				SUB-TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

 Purchase Request Number: 23-3984
 Bid Number: B-23-0279

 Date: 11/22/2023

 Page: 2 of 14

ITEM	QTY.	UNIT OF	DESCRIPTION	APPROVE	D BUDGET	BID F	PRICES
NO.	Q.11.	ISSUE	BESSIAI HOIV	Unit Price	Total Amount	Unit Price	Total Amount
			FusionModule800cabinet air-conditioning copper tubing-set of two downflow_5/8"(air tube)&3/8"(liquid)x2M_(include Engineering accessories) - 1 unit BRACNDPKB: Air Conditioner Auxiliary Material, FusionModule800cabinet air-conditioning copper tubing-set of one downflow_5/8"(air tube)&3/8"(liquid)x0.5M_(include Engineering accessories) - 1 unit NetCol5000- A013HX0E1: Smart Cooling Product, Air Cooling, Indoor Unit, NetCol5000-A013HX0E1, 486H*442W*800D, Horizontal Air Flow, Up&Down Pipe, Single Power Supply, Cooling Only, International packaging - 3 units NetCol500- A018WC1E0: Smart Cooling Product, Air Cooling, Outdoor Unit, NetCol500-A018,865H*1040W*410D, International packaging RESERVE BATTERY SYSTEM FOR CABINET - 2 units SWSUBMCB: FusionModule800-MCB-63A -For Battery Cabinet-Without Remote Control - 2 units FR426135W: Battery Basic Cabinet rack-600mm(W)*1350mm(D)*2000mm(H) BATTERY - 2 units BRACKET01: Wide Guide rail - 40 units BSD12V80AH01: Rechargeable Battery, VRLA Battery, 12V, 80Ah, 12V Monobloc, 289mm(W) *174mm(D) * 222mm(H), 1 PCS, Shoto 6-GFMHR-320W, UPS Battery CABLES - 2 pcs CABBUN20A: Cable Bundle, FusionModule800, 65AH/100AH 20 battery without midline, For Battery cabinet - 3 pcs DCRVV3C04mm001: Power Cable, 5.5m, 6*12AWG, RED, BLACK, YELLOW&GREEN (2*PP45R+2*PP45B+2*PP45Y&G), (RVV4^2(3C)Black), (3*(OT10-6)), 10k UPS to Battery Cabinet - 25 pcs EECABYG6: Power Cable, UL1015, 6AWG, 600V, 90A, Yellow/Green - 4 pcs ACRVV3C06mm002: Power Cable, 3m, 3*6mm^2, Brown, Blue, Yellow/Green, (3*T6^2B), (RVV6^2(3C)				
				GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

Bid Number: B-23-0279 Purchase Request Number: 23-3984 11/22/2023 Date: Page:

3 of 14

						T	
ITEM	QTY.	UNIT OF	DESCRIPTION	APPROVE	ED BUDGET	BID F	PRICES
NO.	G 11.	ISSUE	BEGGINI HOIV	Unit Price	Total Amount	Unit Price	Total Amount
			B), (2*T6^2B+OT6-6), rPDU power supply - 4 pcs ACRVV3C06mm003: Power Cable, 3.6m,3*6mm^2, Brown, Blue, Yellow/Green, (3*T6^2B), (RV\6^2(3C)B), (2*T6^2B+OT6-6), Power supply - 4 pcs ACRVV3C06mm005: Power Cable, 7m, 3*6mm^2, Brown, Blue, Yellow/Green, (3*T6^2B), (RV\6^2(3C)B), (2*T6^2B+OT6-6), rPDU power supply - 8 pcs OT0010M6RO00: Naked Crimping Terminal, OT, 10mm^2, M6, Tin Plating, Naked Ring Terminal - 2 pcs IDS2CBLBDL21: Cable Bundle, FusionModule2000, smart ETH gateway link cable, 3m - 30 pcs C1024BL00: Power Cable, 600V/1000V, ZA-YJV, 5x10mm^2, Black(5Cores:Yellow, Green, Red, Blue, Black), 80A, CE (Unit:meter) - 8 pcs CAB-Straight Through-0.3: Signal Cable, Straight Through Cable, 0.3m, MP8-I, CC4P0.5GY, MP8-I, Unshielded - 12 pcs IDS2SIGCBL02: Signal Cable, standard network cable, 5m, (MP8-I), (CC4P0.5GY), (MP8-I), Power supply - 7 pcs CAB-Straight Through-7: Signal Cable, utn Straight Through Cable, 7m, (MP8-I), (CC4P0.5GY), (MP8-I), Power supply - 7 pcs CAB-Straight Through-12 pcs Cable, 600V, UL1015, 8AWG, Black, 71A, UL (Unit:meter) - 4 pcs C600BLK00: Power Cable, 600V, UL1015, 8AWG, Black, 71A, UL (Unit:meter) - 4 pcs C600RED00: Electronic Electric Cable, 600V, UL1015, 8AWG, Red, 71A, UL - 1 pc ACRVV3C06mm001: Power Cable, 4.8m, 3*4mm^2, Black (3Cores:Blue, Brown, Yellow/Green), (2*T6^2B+OT6-6), ZA-RVV4mm^2(3C)B,(2*T6^2B+OT6-6), ZA-RVV4mm^2(3C)B,(2*T6^2B+OT6-6), ZA-RVV4mm^2(3C)B,(2*T6^2B+OT6-4), Power supply TECHNICAL SUPPORT SERVICE - 1 set 52274160-001_88134UGQ-22V_12: Smart Cooling Product, Air Cooling, Indoor Unit, NetCol5000-A013HX0E1, 486H*442W*800D, Horizontal Air Flow, Up&Down Pipe, Single Power Supply, Cooling Only,	GRAND TOTAI	18.499.795.00		
				GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

Bid Number: B-23-0279 Purchase Request Number: 23-3984 11/22/2023 Date:

4 of 14 Page:

ITEM	QTY.	UNIT OF	DESCRIPTION	APPROVE	ED BUDGET	BID F	PRICES
NO.	QII.	ISSUE	DESCRIPTION	Unit Price	Total Amount	Unit Price	Total Amount
			International packaging_Co-Care Standard NetCol5000-A 11-13kW_12Month(s) - 1 set 02233RYE_88134UGQ-61J_12: Sub assembly Accessories, FusionModule800, Basic configuration BC3L-IT25kW-UPS10K*3 - Intelligent temperature control*2-ECC800-Pro-PAD-Smoke sensor_Co-Care Standard-FusionModule800-Integrated UPS Cabinet-25kW-UPS10K*3-control*2_12Month(s) DATA CENTER IMPLEMENTATION SERVICE - 1 set 8814060128: FusionModule800 Installation guide and commissioning /pcs - 1 set 8814060148: NetCol5000-A, NetCol5000-C, NetCol8000-C precision air conditioner supervision/pcs IMPLEMENTATION SERVICE FOR FM800 AND UPS SYSTEM WITH VRLA BATTERY - 1 set 1.1 Inventory/ unboxing of equipment 1.2 Assembly and positioning of FMModule800, UPS cabinet, cooling cabinet, and battery cabinet 1.3 Mounting and Integration of UPS power modules and battery Modules 1.4 Installation of cables and sensors of UPS system, Cooling system and battery system 1.5 Assist on the installation of battery and inter-cell power 1.6 Tapping of AC cables to the main PDU of FM800 1.8 Testing and chceking of AC power and battery system 1.9 Integration of monitoring of system monitoring 1.9 Start-up and commissioning 1.10 Testing and configuration of system 1.11 User orientation/ User training 1.12 UPS functional testing - 1 package Support and Service Warranty Cost for 1 year				
				GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

 Purchase Request Number: 23-3984
 Bid Number: B-23-0279

 Date: 11/22/2023

 Page: 5 of 14

ITEM	OTV	UNIT OF	DESCRIPTION	APPROVE	ED BUDGET	BID F	PRICES
NO.	QII.	ISSUE	DESCRIPTION	Unit Price	Total Amount	Unit Price	Total Amount
ITEM NO.	QTY.	UNIT OF ISSUE	DESCRIPTION 1.1 1 Year Service Warranty Coverage 1.2 24/7 Service Desk support and On-call support 1.3 24/7 On-Site support / Remote support 1.4 Quarterly Visit Preventive Maintenance 1.5 Equipment warranty enrolled back-to-back w/ principal ELECTRICAL AND MECHANICAL WORKS FOR THE FM800 - 1 package MECHANICAL: Hauling and positioning of PACU and condenser Supply & Installation of refrigerant pipe w/ insulation Supply & Installation of pipe supports Supply & installation of Control Wires with conduit from PACU to Condenser Supply & Installation of water line and drain line, tap to nearest tapping point Flushing and Leak testing of pipes Vacuuming of the system Supply of Refrigerant Housekeeping works ELECTRICAL: Supply and installation of Electrical works from tappning point to Data Center Supply and installation of 40kVA Transformer PREVENTIVE MAINTENANCE: Quarterly				,
			preventive maintenance for 4 x NetCol5000 PACU (Good for 1 year) DATA CENTER FLOORING (VINYL FLOORING): 1 package Supply of labor and materials for anti static vinyl tiles, 34949 AVQT (plain) 3mm 300x300 white anti static vinyl tiles (26SQM) ACCESS CONTROL: Card-based Access Control System EM Lock Controller-Reader Power supply 10 x MiFare Card Installation, cabling and wiring CABLE TRAY SYSTEM: 1 package Cable	GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

 Purchase Request Number: 23-3984
 Bid Number: B-23-0279

 Date: 11/22/2023

 Page: 6 of 14

ITEM	QTY.	UNIT OF	DESCRIPTION	APPROVE	ED BUDGET	BID F	PRICES
NO.	Q i i .	ISSUE	BESOKII HOIV	Unit Price	Total Amount	Unit Price	Total Amount
			Wire Mesh, 18 inches under floor Cable Ladder, 18 inches on the wall With installation VXRAIL NODE: 3 units VxRail S670 1 x Intel® Xeon® Silver 4314 2.4G, 16C/32T, 10.4GT/s, 24M Cache, Turbo, HT (135W) DDR4-2666 8 x 32GB RDIMM, 3200MT/s, Dual Rank, 16Gb BASE x8 3 x 4TB NLSAS ISE 12Gbps 7.2K 512n 3.5in Hard Drive 1 x 1.6TB SSD SAS ISE Mix Use 12Gbps 512 2.5in Flex Bay AG Drive, 3 DWPD BOSS-S2 controller card + with 2 M.2 480GB (RAID 1) with Rear 4xBP Broadcom 57414 Dual Port 10/25GbE SFP28, OCP NIC 3.0 ReadyRails Sliding Rails With Cable Management Arm Dual, Hot-Plug,Power Supply Fault Tolerant Redundant (1+1), 1400W, Mixed Mode 2 x Jumper Cord - C13/C14, 2M, 250V, 12A (Guam, North Marianas, Philippines, Samoa) ProSupport VSAN Hybrid Standard-ACDTS, 36 Month(s) VMware Hypervisor license and subscription VSAN Standard license and subscription VSAN Standard license and subscription VSAN Standard license and subscription SERVER SWITCH: 2 units EMC Switch S4112F, 12 x 10GbE SFP+, 3 x 100GbE QSFP28, FAN to IO, 2 x AC PSU, each with 2 x Networking, Transceiver, SFP, 1000BASE-T 2 x Networking, Transceiver, SFP+, 10GbE, SR, 850nm Wavelength, 300m Reach Info Mod - Factory Pass Through Process Networking Cable, 100GbE, QSFP28 to QSFP28, Passive Copper Direct Attach,			Unit Price	Total Amount
				GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

Purchase Request Number: 23-3984 Bid Number: B-23-0279
Date: 11/22/2023
Page: 7 of 14

ITEM	QTY.	UNIT OF	DESCRIPTION	APPROVE	D BUDGET	BID F	PRICES
NO.	QII.	ISSUE	DESCRIPTION	Unit Price	Total Amount	Unit Price	Total Amount
			Meter 3 x Networking, Cable, SFP+ to SFP+, 10GbE, Passive Copper Twinax Direct Attach Cable, 2 Meter 2 x Networking Cable, LC to LC Fiber Cable, MMF, OM4, Optics Required, 10M Boxing Label Mod Networking Dual Tray, one Rack Unit, 4- post rack only, S4112 2 x Jumper Cord - C13/C14, 2M, 250V, 10A (EU, TW, APCC countries except ANZ) EMC Networking S4112-ON APJC User Guide OS10 Enterprise, S4112F Force10 Promotion 3 Year ProSupport OS10 Enterprise Software Support-Maintenance 3 Yr ProSupport:Next Business Day Onsite Service-VN,PK,PH,BN,SL,BD S4112F No Installation Services Selected Technical Support-VN,PK,PH,BN,SL,BD S4112F LICENSES: - 2 LIC Microsoft SQL Standard, 2-core license - 1 LIC MySQL Enterprise - 3 LIC Windows Server 2022 Standard, 16-core license ENGINEERING SERVICES: 1 package Onsite installation, Configuration, Testing, Commissioning an Administrative User Training TERMS AND CONDITIONS Data Center On-site installation, Configuration, Testing, Commissioning and Administrative User Training Support duration: 1 year Smart cabinet support and 3 years for servers Phone and email support: unlimited 24/7 Remote support: within business days Preventive Maintenance: Quarterly w/in 1 year Delivery duration: 1 year service and				
		I		GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

 Purchase Request Number: 23-3984
 Bid Number: B-23-0279

 Date: 11/22/2023

 Page: 8 of 14

ITEM	QTY.	UNIT OF	DESCRIPTION	APPROVE	D BUDGET	BID F	PRICES
NO.	QII.	ISSUE	BESSINI TION	Unit Price	Total Amount	Unit Price	Total Amount
			hardware warranty TERMS OF REFERENCE I. CONTRACT PERIOD The contract period upon receipt of Notice to Proceed (NTP) shall cover one hundred Fifty (150) calendar days for the installation, Configuration, Testing, Commissioning and Administrative User Training.				
			II. APPROVED BUDGET FOR THE CONTRACT (ABC) 1. The Fund for this engagement shall be sourced from the General Appropriations Act (GAA) for the fiscal year 2023 of PICTO. 2. The ABC for the project is Eighteen Million Four Hundred Ninety Nine Thousand Seven Hundred Ninety Five Pesos (PhP18,499,795.00) inclusive of all government taxes and other fees and charges.				
			III. MODE OF PROCUREMENT The procurement of the Davao De Oro Data Center shall be undertaken through Competitive Bidding pursuant to RA No. 9184 and its 2016 Revised IRR.				
			IV. CONDITIONS ON THE DELIVERY AND INSTALLATION This project is aligned with the implementation of the Davao De Oro Data Center of the Provincial Information And Communication Technology FY Q2 2023. The Contractor of this Project shall be willing to provide flexibility on the schedule of delivery and installation of data center equipment and the provision of software & hardware, electronics, mechanical, electrical, and other services pertaining hereof based on the Data Center Project. The installation of data center equipment is to be accomplished in the 3rd Floor Executive Building, Capitol Complex, Cabidianan, Nabunturan, Davao De Oro.				
			V. TECHNICAL SPECIFICATIONS The solutions should have the following specifications and capabilities:	GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

 Purchase Request Number: 23-3984
 Bid Number: B-23-0279

 Date: 11/22/2023

 Page: 9 of 14

ITEM	QTY.	UNIT OF	DESCRIPTION	APPROVE	D BUDGET	BID F	PRICES
NO.	31.	ISSUE	DESCRIPTION	Unit Price	Total Amount	Unit Price	Total Amount
			1. Integrated Data Center Facility 1.1 General Requirements 1.1.1 The solution should be an integrated data center facility with UPS, precision cooling, rack system, and monitoring system 1.1.2 The system shall support up to 10kW IT capacity 1.1.3 The rack system shall be with hot and cold containment 1.1.4 The backup power should have redundancy, 2N redundancy 1.1.5 The cooling system shall be PACU-based; at least two units 1.1.6 Shall have an integrated monitoring system with tablet to view status of the integrated systems 1.2 Rack System 1.2.1 Shall have at least two (2) IT racks: 1 network and 1 server rack 1.2.2 Another rack to house the UPS, power distribution, cooling and monitoring system 1.2.3 With dual metered 32A PDUs per IT rack; with C13 and C19 1.2.3.1 accurately and effectively monitors the real-time status changes of the current, voltage, power, and electric energy of electrical devices in the data center 1.2.4 Intelligent door locks 1.3 Backup Power 1.3.1 At least two units 10kVA online UPS 1.3.2 1 (unity) output power factor rating 1.3.3 96% system efficiency 1.3.4 Backup runtime should be at least 10 minutes 1.3.5 Rack-mounted 1.3.6 Redundant configuration 1.3.7 Manual bypass capable 1.4 Precision Cooling 1.4.1 At least two (2) units with 12.5 kW cooling capacity 1.4.2 Air volume capacity per unit 2600 m3/hour 1.4.3 ROHS, CE certified 1.5 Monitoring System 1.5.1 manages the real-time status, alarms, and configuration information about the devices inside the integrated data center				
		L		GRAND TOTAL	18,499,795.00	<u></u>	

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

Bid Number: B-23-0279 Purchase Request Number: 23-3984 11/22/2023 Date:

Page: 10 of 14

ITEM	OTV	UNIT OF	DECCRIPTION	APPROVE	ED BUDGET	BID F	PRICES
NO.	QTY.	ISSUE	DESCRIPTION	Unit Price	Total Amount	Unit Price	Total Amount
			1.5.2 retrieve historical data 1.5.3 must have the following monitoring capabilities: 1.5.3.1 Tablet-based human-machine interface 1.5.3.2 Temperature and humidity sensor 1.5.3.3 Smoke sensor 1.5.3.4 Flood/water leak sensor 1.5.3.5 Email and SMS alarm 1.5.3.6 Power distribution monitoring 1.5.3.7 Cabinet door access activity records 2. Hyperconverged Server Infrastructure 2.1 General Requirement				
			2.1.1 At least 3-node HCl cluster 2.1.2 Can tolerate 1 node failure or 1 disk failure in a node 2.1.3 must include in the software bundle with 1 instance license of 'standard virtualization manager software' for the data center to enable advanced high availability features, e.g., live migration, high availability, fault tolerance, etc. 2.2 HCl Node Should have at least: 2.2.1 1 x Intel® Xeon® Silver 4314 2.4G, 16C/32T, 10.4GT/s, 24M Cache, Turbo, HT (135W) DDR4-2666 2.2.2 256 GB memory; preferable 8 x 32 GB DDR4				
			2.2.3 3 x 4TB NLSAS ISE 12Gbps 7.2K 512n Hard Drive 2.2.4 1 x 1.6TB SSD SAS ISE Mix Use 12Gbps 512 2.5in Drive, 3 DWPD 2.2.5 M.2 480 GB RAID 1 boot SSD 2.2.6 Dual Port 10/25GbE SFP28, OCP NIC 3.0 2.2.7 Sliding Rails With Cable Management Arm 2.2.8 Dual, Hot-Plug, Power Supply Fault Tolerant Redundant (1+1), 1400W, Mixed Mode 2.2.9 2 x Jumper Cord - C13/C14, 2M, 250V, 12A 2.2.10 Professional Support with NBD Onsite 2.3 Hypervisor Software				
			2.3.1 Enterprise-class type-1 or bare- metal hypervisor technology	GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

Purchase Request Number: 23-3984 Bid Number: B-23-0279

Date: 11/22/2023

Page: 11 of 14

APPROVED BUDGET **BID PRICES** ITEM UNIT OF QTY. **DESCRIPTION** NO. **ISSUE Unit Price** Total Amount Unit Price Total Amount 2.3.2 Enables multiple virtual machines to share hardware resources Enables live migration of virtual 2.3.3 machines between servers and across virtual switches with no disruption to users or loss of service, eliminating the need to schedule application downtime for planned server maintenance Enables live migration of virtual-2.3.4 machine disks with no disruption to users, eliminating the need to schedule application downtime for planned storage maintenance or storage migrations 2.3.5 Provides cost-effective, automated restart within minutes for all applications if a hardware or operating system failure occurs Secures virtual machines with 2.3.6 offloaded antivirus and antimalware solutions without the need for agents inside the virtual machine Enables abstraction for external 2.3.7 storage (SAN and NAS) devices making them VM-aware Provides dynamic allocation of 2.3.8 shared storage capacity, enabling IT organizations to implement a tiered storage strategy 2.3.9 Virtual switch 2.3.10 Enables efficient, array-agnostic replication of virtual machine data over the LAN or WAN, and simplifies management by enabling replication at the virtual machine level Allows common management 2.3.11 across storage tiers and dynamic storage class-of-service automation via a policydriven control plane. Supports TPM 2.0 hardware modules and adds a virtual TPM device to shield guest OS from operator or inquest attacks. Must be a leader in Gartner's 2.3.13 Magic Quadrant 2.4 **HCI Software** 2.4.1 Eliminates the need for a SAN storage as disk drives on the rack server can be pooled to form a virtual storage 2.4.2 Software Defined Storage software is built into the hypervisor kernel, optimizing the data I/O path to provide the highest levels of 18,499,795,00 **GRAND TOTAL**

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

Bid Number: B-23-0279 Purchase Request Number: 23-3984 11/22/2023 Date:

Page: 12 of 14

ITEM QTY	, UNIT OF	DESCRIPTION	APPROV	ED BUDGET	BID F	PRICES
NO.	· ISSUE	DESCRIPTION	Unit Price	Total Amount	Unit Price	Total Amount
		performance with minimal impact on CPU and memory; no need for specialized hardware or controller VM optimizing the resources for virtual machine workloads 2.4.3 Minimizes storage latency with built-in caching on server-side flash devices 2.4.4 Non-disruptively expand capacity and performance by adding hosts to a cluster (scale-out) or just grow capacity by adding disks to a host (scale-up) 2.4.5 The virtual volume/storage can be an iSCSI target even for external servers outside of HCI cluster 2.4.6 leverages distributed RAID and cache mirroring to ensure that data is never lost if a disk, host, network or rack fails 2.4.7 Can support 2-node deployment 2.4.8 QoS controls, limits and monitors the IOPS consumed by specific virtual machines, eliminating noisy neighbor issues 2.4.9 Create a robust stretched cluster with site and local protection between two geographically separate sites, synchronously replicating data between sites (supported via license upgrade) 2.4.10 Must be a leader in Gartner's Magic Quadrant 2.5 VM Replication Software 2.5.1 Local and remote replication 2.5.2 Capable of near-zero RPO and RTO data protection 2.5.3 Tight integration the hypervisor manager 2.6 Application Licenses 2.6.1 Standard version 2.6.1.2 License for 4 cores database server 2.6.2 MySQL enterprise license 2.6.2.1 Enterprise license with 1 year support 2.6.2.2 License for 1 server 2.6.3 Windows Server license 2.6.3.1 Licenses for 3 nodes 2.6.3.2 Standard version 2.6.3.3 Able to host up to 2 Windows Server VMs				

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

Bid Number: B-23-0279 Purchase Request Number: 23-3984 11/22/2023 Date: Page: 13 of 14

_						1	
ITEM	QTY.	UNIT OF	DESCRIPTION	APPROVE	ED BUDGET	BID F	PRICES
NO.	ς	ISSUE	2 200 1.0	Unit Price	Total Amount	Unit Price	Total Amount
NO.		ISSUE	3. Warranty and Support 3.1 3 years of manufacturer hardware and software warranty and software support for HCl servers from date of delivery 3.2 1 year manufacturer hardware warranty and support for the integrated data center facility after acceptance 3.3 1 year bidder support after final acceptance 4. Scope of Services 4.1 Deliver the hardware and software entitlement to the site, Nabunturan, Davao de Oro 4.2 Collaborate to finalize the design and plans with procuring entity (PE) 4.3 Provide project management services to oversee the project implementation 4.4 Install, implement and configure the devices 4.4.1 Assist in migration of existing VMs (at least 5) to new infra 4.4.2 Database and servers installation will be by PE 4.5 Conduct user acceptance testing based on agreed criteria 4.6 Conduct admin training for the ICT office of the PE 4.7 Provide documentation and as- built plans pertaining the project 5. Bidder Qualifications 5.1 The Contractor/Bidder should have the necessary eligibility, experience and expertise in providing the service, and the following: 5.1.1 The bidder should be able to provide Manufacturer Certificates authorizing to sell all products proposed; 5.1.2 Must be an ICT solutions provider; 5.1.3 With PCAB for communication	Unit Price	Total Amount	Unit Price	Total Amount
			facilities license issued by DTI; 5.1.4 Must employ the following professionals: 5.1.4.1 at least one (1) registered electrical engineer/electronics engineer 5.1.4.2 at least one (1) data center				
			professional 5.1.4.3 at least two (2) server virtualization professional	GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO



Cabidianan, Nabunturan, Davao de Oro

TECHNICAL SPECIFICATIONS FORM

Bid Number: B-23-0279 Purchase Request Number: 23-3984 11/22/2023 Date:

14 of 14 Page:

ITEM NO.	QTY.	UNIT OF ISSUE	DESCRIPTION	APPROVED BUDGET		BID PRICES	
				Unit Price	Total Amount	Unit Price	Total Amount
			5.1.4.4 at least one (1) project management professional 5.1.5 An office in Davao Region to provide immediate onsite support if needed; and 5.1.6 Maintains a 24 x 7 helpdesk facility to attend support requests with 30 minutes to 1 hour response time. Can be reached through the following channels: email, SMS, mobile and landline VI. WARRANTY AND MAINTENANCE 1. Twelve (12) months warranty upon installation for all equipment installed. 2. Cabling Works / System Components must adhere to the ten (10) years industry standards compliance product warranty. 3. Workmanship maintenance contract for twelve (12) months with no additional cost. 4. With parts and next business day onsite service support for all equipment during the whole duration of the warranty. 5. Technical end-user training for the PICTO personnel. 6. After-sales support services.				
				GRAND TOTAL	18,499,795.00		

Purpose: For centralized, stable and redundant storage of databases, and for seamless implementation of applications in the Provincial

Delivery: PGSO